

Department of Mathematics and Sciences Scholarship Guidelines

The Department of Mathematics and Sciences strives to provide an environment in which students can construct meaningful knowledge, particularly in the disciplines of mathematics and the sciences.

The Department serves various constituencies, including traditional and nontraditional students; prospective students, current students and alumni; students pursuing a major in science (Biology), in science or mathematics-intensive fields (Veterinary Technology, Elementary Education with a concentration in Science, Adolescent Education / Mathematics, and the various business-oriented programs), and the general student population through the coursework included in the core curriculum.

At present, both time and resources available to faculty members for scholarly activities is severely limited. All faculty in the department teach at least the 24 credits required annually for full-time faculty; faculty have not received a reduction in teaching load to accommodate the newly-implemented requirement for scholarship. Because laboratories are figured into the teaching load, faculty who teach laboratory periods have more than 12 contact hours in a 12-credit semester. Department faculty members are often requested to teach overloads. Additionally, some faculty members have substantial responsibilities, beyond those of a typical faculty member, as a result of their roles as faculty advisors.

Laboratory space is currently inadequate for even basic instructional purposes. Because of the large number of laboratory sections which need to be scheduled in a small number of laboratory rooms, bench space for wet research is limited. Certain essential equipment, such as hood space, is at a premium. Relatively few students are available to function as research assistants. Additionally, the department budget for supplies and equipment is not large enough to support most research activities. Although the college is attempting to facilitate scholarly activity by increasing the number of sabbatical awards and providing modest funding through the Faculty Development Committee, the lack of time and resources have severely limited opportunities for many science and mathematics faculty members to pursue the scholarship of discovery on a regular basis. Consequently, most departmental faculty members have focused upon the scholarships of teaching, integration, or application.

In accordance with 4.5.3.3.2 of the Faculty Handbook / Volume IV, the faculty of the Department of Mathematics and Sciences recognize both the importance of demonstrating evidence of continuing scholarly productivity and the fact that rigid timetables for research and scholarship are often unrealistic. Although scholarship is evaluated annually, the Department will consider scholarly activities conducted over a three-year timeframe in order to construct a meaningful assessment of each faculty member's accomplishments. (For example, the self-evaluation submitted in January 2008 may reference scholarly activities conducted in 2005 through 2007.)

The following list provides examples of ways in which Department of Mathematics and Sciences faculty may demonstrate scholarship. However, the Department recognizes that demonstration of scholarship is not limited to the activities listed below. It is the responsibility of individual faculty members to become familiar with the categories of scholarship described in the Faculty Handbook / Volume IV, as well as the departmental interpretations provided in the list given below, so that they may determine how their activities and accomplishments fit these categories as they present their work in self-evaluations and applications for promotion and tenure.

1. The Scholarship of Teaching

- Regular and effective engagement in teaching and advisement
- Nature and number of courses taught each semester
- Student mentoring / advising
- Supervising student research projects
- Supervising student math or science clubs
- Development of new courses or curricula and revisions of existing courses or curricula.
- Development and implementation of novel materials and methods for placement, teaching or assessment
- Creation of a publicly accessible online teaching resource
- Development of an online/distance learning course
- Publication of educational research
- Presentation of educational research at state or national conferences and professional meetings
- Guest Lectures
- Facilitating workshops for peers or students
- Other activities that may be defended as Scholarship of Teaching

2. The Scholarship of Discovery

- Publication of original research in peer-reviewed journals
- Publication of books, book chapters, and articles
- Presentation of original research at state, national or international conferences and professional meetings
- Grant proposal that outlines a research project designed to test hypotheses and/or scientific assumptions
- Citation by others of one's original research
- Other activities that may be defended as Scholarship of Discovery

3. The Scholarship of Integration

- Development of cross-course (e.g. interdisciplinary or co-curricular) learning activities
- Promotion of writing across the curriculum
- Publication of a literature review article
- Attendance at a meetings/seminars/workshops sponsored by a scientific/mathematical/educational organization
- Other activities that may be defended as Scholarship of Integration

4. The Scholarship of Application

- Develop real world application exercises for course content
- Develop activities that place students in real world situation as problem solvers
- Grant proposal designed for the enhancement of teaching or related activities
- Reviewing manuscripts or grant applications
- Reviewing or editing chapters for text books
- Refereeing for peer-reviewed journals
- Participating on the editorial board of a publication
- Writing items for ACT/SAT or other agencies
- Consulting work for businesses, governmental agencies, or academic institutions
- Facilitating workshops for community events
- Guest lectures for community events
- Other activities that may be defended as Scholarship of Application